



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,489	02/23/2005	Johan Cornelis Talstra	NL 020833	4882

24737 7590 12/20/2007
PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

AZARIAN, SEYED H

ART UNIT	PAPER NUMBER
----------	--------------

2624

MAIL DATE	DELIVERY MODE
-----------	---------------

12/20/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/525,489

Applicant(s)

TALSTRA ET AL.

Examiner

Seyed Azarian

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-10 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 1/23/2007.
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because the abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of "50 to 150 words". It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2 and 4-10, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi et al (U.S. patent 7,142,689) in view of Kimura, Hiroyki (EP 0903736 A2).

Regarding claim 1, Hayashi discloses a method of detecting a watermark in a multimedia signal being rendered by a computer system for display on a display screen connectable to said computer system, the method comprising (column 4, lines 30-43, as is shown in FIG. 1, the electronic watermark embedment apparatus comprises: a color component extraction unit; a registration signal embedment unit; a pattern arrangement determination unit; an embedment position determination unit; an additional information embedment unit; a color component synthesis unit; a JPEG compression encoding unit; a memory; a JPEG decompression decoding unit, also column 8, lines 37-43, by performing a comparison process for the two information sets, and at step 3210, information indicating the reliability of the data is "display" using a reliability index D that will be described later and column 48, lines 56-67, signal detection judgment process, a check is performed to determine whether the registration signal r has been detected in the scaling adjustment process, the pre-process. When the registration signal has not been detected, at that time the information extraction process is terminated. Since the registration signal r should be detected in an image wherein the electronic watermark information has been embedded, if the registration signal r can not be detected, this means that the electronic watermark information has not been embedded. Therefore, the electronic watermark extraction process need not be thereafter continued, and can at that time be terminated and finally column 50, lines 2-9, refer to DVD);

receiving the multimedia signal in the form of color signal components (R,G,B), (column 6, lines 16-32, the image data included in the additional information that is to be embedded is output by the additional information embedment unit to the "color"

component synthesis unit. The color component synthesis unit 0105 synthesizes the blue component processed at the preceding stage (by the additional information embedment unit) and the red and green components "received" directly from the color component extraction unit 0101 to obtain the normal color image data. The color image data obtained by the color component synthesis unit is transmitted to the JPEG compression encoding unit, whereat the received color image data, which consists of red, blue and green components, is converted into color image data consisting of color difference components, and JPEG compression encoding is performed for the obtained color image data).

However Hayashi discloses (column 31, line 63 through column 32, line 14, the color image data input to the JPEG compression encoding unit is "converting into luminance (Y)" and a color difference). But does not explicitly state its corresponding "color signal components into a luminance signal", detecting the watermark in said luminance signal". On the other hand Kimura in the same field of video copy protection teaches (see abstract, electronic watermark information obtained by changing a luminance value of a luminance signal in a video signal and a copy generation management signal (CGMS signal) inserted into an area out of a scan region of the video signal are recorded into a recording medium. A reproducing apparatus comprises an electronic watermark information detecting circuit, a CGMS signal detecting circuit, a control circuit to which detected electronic watermark information and CGMS signal are supplied, and a video signal processing circuit controlled by an output of the control circuit).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Hayashi invention according to the teaching of Kimura, because combination of Hayashi and Kimura provides improve apparatus for a video signal copy protection, which can easily discriminate whether the signal is reproducible or not.

Regarding claim 2, Hayashi discloses a method as claimed in claim 1, wherein said step of converting comprises computing $Y=R/4+G/2+B/8$, where Y is said luminance signal and R, G and B are said color signal components (see claim 1, also column 31, line 63 through column 32, line 14, color image data consisting of red (R), green (G) and blue (B) components are input, the equations $Y=0.29900 \cdot R + 0.58700 \cdot G + 0.11400 \cdot B$ $Cr=0.50000 \cdot R - 0.41869 \cdot G - 0.08131 \cdot B$ $Cb=-0.16874 \cdot R - 0.33126 \cdot G + 0.50000 \cdot B$ are employed to convert the format of the original color image data into color image data that consist of the luminance (Y) and the color difference).

Regarding claim 4, Hayashi discloses a method as claimed in claim 1, wherein said color signal components are red, green and blue, and said step of converting comprises selecting the green color signal component to constitute said luminance signal (column 4, lines 43 50, in this embodiment, the apparatus can cope with the input image data I, regardless of whether the data are gray scale image data or color image data. For the gray scale image data, a pixel has only a single component, while for the

color image data, one pixel has three components. In this embodiment, the three components are a red component a green component and blue component).

Regarding claim 5, Hayashi discloses a method as claimed in claim 1, wherein the step of detecting the watermark comprises using a watermark detector being arranged to detect the watermark in a luminance signal having a predetermined resolution, the method further comprising the step of changing the resolution of the multimedia signal to said predetermined resolution prior to said watermark detection (column 18, lines 4-21, in FIGS. 45A and 45B, two images, having different resolutions are converted into images, that have the same size, and are output by the printer. A process sequence performed for a low-resolution image is shown in FIG. 45A, and a process sequence performed for a high-resolution image is shown in FIG. 45B. First, the enlargement process is performed for the images, so that one pixel corresponds to one dot. An interpolation procedure, such as the nearest neighbor method, is employed as the enlargement method. The nearest neighbor method is a method by which the value of a pixel is copied to a neighboring pixel for enlargement (when an image has a very high resolution, reduction may be performed). As a result, the image is enlarged and the image is obtained, and the image is enlarged and the image is obtained).

Regarding claim 6, Hayashi discloses a method of detecting a watermark in a multimedia signal being rendered by a computer system through a plurality of outputs each connectable to a display screen, characterized in that the method comprises the step of time-sequentially connecting a watermark detector operating according to claim 1 (see claim 1, also column 27, lines 4-13, first, the threshold value that is required for

correctly embedding the additional information integer time is determined, while taking into account the deterioration of the image quality that occurs during embedment. Further, in order to repeat the bits of the additional information an equal number of times, the number of coefficients that is equal to or smaller than the threshold value is divided by the number N of the bits consisting of the additional information, and the repetition count for embedding each bit for one mask size is determined).

Regarding claim 7, Hayashi discloses a computer system for rendering a multimedia signal method for display on a display screen via a display output of said computer system, the computer system comprising a watermark detector connected to said display output, said watermark detector being arranged to: receive the rendered multimedia signal in the form of color signal components (R,G,B); convert said color signal components into a luminance signal (Y), detect the watermark in said luminance signal (see claim 1, also column 50, lines 2-8, FIG. 50 is a flow chart for the electronic watermark processing according to this embodiment. A "computer-executable program, wherein the processing for the flow chart in FIG. 50 is written, is stored in advance in the ROM, or on a HD, a CD, a FD or a DVD, and after being loaded into the RAM, is executed by the CPU 5303 to carry out this embodiment).

With regard to claims 8, 9 and 10, the arguments analogous to those presented above for claims 1, 3, 7 and 9 are respectively applicable to claims 8, 9 and 10.

Allowable Subject Matter

4. Claim 3 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the **base claim** and any intervening claims.

Other prior art cited

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(U.S. patent 6,751,320) to Rhoads is cited for method and system for preventing reproduction of professional photographs.

(U.S. patent 6,614,914) to Rhoads et al is cited for watermark embedder and reader.

(U.S. patent 6,714,683) to Tian et al is cited for wavelet based feature modulation watermarks and related application.

(U.S. patent 5,784,050) to Corry is cited for system and method for converting video data between the RGB and YUV color spaces.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seyed Azarian whose telephone number is (571) 272-

Application/Control Number:
10/525,489
Art Unit: 2624

Page 9

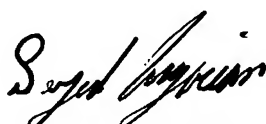
7443. The examiner can normally be reached on Monday through Thursday from 6:00 a.m. to 7:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella, can be reached at (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application information Retrieval (PAIR) system. Status information for published application may be obtained from either Private PAIR or Public PAIR.

Status information about the PAIR system, see [http:// pair-direct.uspto.gov](http://pair-direct.uspto.gov). Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Seyed Azarian
Patent Examiner
Group Art Unit 2624
December 16, 2007


SEYED AZARIAN
PRIMARY EXAMINER